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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,378	07/09/2001	Markus Radimirsch	10191/1790	5929
26646	7590	06/03/2005	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			PEZZLO, JOHN	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/807,378

Applicant(s)

RADIMIRSCH, MARKUS

Examiner

John Pezzlo

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-31 and 33 is/are rejected.
- 7) ☒ Claim(s) 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11 April 2001.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

- I. Claim 31 is objected to because of the following informalities: Claim 31 depends from itself. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- II. Claims 29 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Regarding claim 29 - The claim ends mid-sentence and the claim sentence need to be completed ending with a period, as is the claim is indefinite.
2. Regarding claim 33 – Line 2, use of the term "a large duration" is indefinite.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

III. Claims 18-29, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diepstraten et al. (US 5,329,531) hereinafter Diepstraten.

1. Regarding claim 18 – Diepstraten discloses providing multiframe, each of the multiframe being divided into a plurality of containers, each of the containers being selected to be so large that complete transmission frame, including at least one of an uplink data packet and a downlink data packet, and corresponding signaling data, can be accommodated in a single one of the containers, refer to Figures 5 and 6A and column 5 lines 48 to 68 and column 6 and column 7 lines 1 to 58.

Diepstraten monitoring by a first one of central units at least one complete one of the multiframe, refer to Figure 1 and column 1 lines 20 to 68 and column 5 lines 1 to 48.

Diepstraten discloses determining free capacity of frequency channels for further multiframe as a function of the monitoring, refer to column 7 lines 59 to 68 and column 8 lines 1 to 58.

Diepstraten discloses occupying one of the frequency channels that has capacity, refer to column 2 lines 15 to 68 and column 3 lines 1 to 38.

Diepstraten does not expressly disclose when there is a collision with a second one of the central units, the second one of the central units using a same time slot and a same frequency channel for a transmission frame as the first central unit.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art for the backbone network to have collisions if base A communicates with another base station over the backbone network. The suggestion/motivation for doing so would have been that Diepstraten discloses the use of a CSMA/CA system for communication over the wireless channel and this form of communication would have been used for the backbone network. Since the backbone network is asynchronous between base stations the likelihood of a collision would be extremely high resulting in the need for the base stations to implement a random backoff as disclosed in Diepstraten, refer to Figure 2 and column 4 lines 47 to 60. The benefit being that only protocol is required for the entire system, both the communication in a sector and between sectors. Utilizing the random backoff will enable each station to communicate without the high probability of a collision.

Diepstraten discloses at least one of the first one of the central units and the second one of the central units: i) immediately refraining from occupying the time slot, and ii) attempting occupation again after a time lag, refer to Figure 2 and column 4 lines 46 to 60.

2. Regarding claim 19 – Diepstraten discloses providing multiframe, each of the multiframe being divided into a plurality of containers, each of the containers being selected to be so large that a complete transmission frame, including at least one of an uplink data packet and a downlink data packet and corresponding signaling data, can be accommodated in a single

one of the containers, refer to Figures 5 and 6A and column 5 lines 48 to 68 and column 6 and column 7 lines 1 to 58.

Diepstraten transmitting by a first one of the central units a signal in irregular intervals, the signal announcing that the first one of the central units wants to occupy one of the containers in a following multiframe, refer to column 2 lines 15 to 68 and column 3 lines 1 to 38.

Diepstraten does not expressly disclose that between transmissions by the first one of the central units, determining by the first one of the central units if another one of the central units wants to occupy a same one of the containers that the first one of the central units wants to occupy and if another one of the central units wants to occupy the same one of the containers withdrawing by the first one of the central units and attempting occupation again after a lag time.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art for the backbone network to have collisions if base A communicates with another base station over the backbone network. The suggestion/motivation for doing so would have been that Diepstraten discloses the use of a CSMA/CA system for communication over the wireless channel and this form of communication would have been used for the backbone network. Since the backbone network is asynchronous between base stations the likelihood of a collision would be extremely high resulting in the need for the base stations to implement a random backoff as disclosed in Diepstraten, refer to Figure 2 and column 4 lines 47 to 60. The benefit being that only protocol is required for the entire system, both the communication in a sector and between sectors. Utilizing the random backoff will enable each station to communicate without the high probability of a collision.

Art Unit: 2662

3. Regarding claim 20 – Diepstraten discloses wherein the transmitting step includes transmitting the signal in random intervals, refer to Figure 4, TIM/Beacon, and column 5 lines 35 to 42.
4. Regarding claim 21 – Diepstraten discloses providing a collision prevention measure, refer to Figure 2, CSMA/CA, column 4 lines 47 to 60.
5. Regarding claim 22 – Diepstraten discloses providing a radio cell of the radio communication system, the radio cell being assigned at least one of the containers and at least one of the frequency channels, refer to Figure 1, callouts 10 and 12, and column 4 lines 20 to 36.
6. Regarding claim 23 – Diepstraten discloses wherein a carrier sense multiple access/collision avoidance (CSMA/CA) method is used for the collision prevention measure, refer to Figure 2, CSMA/CA, column 4 lines 47 to 60.
7. Regarding claim 24 – Diepstraten discloses selecting by the at least one of the first central unit and second central the lag time in a random manner, refer to Figure 2, CSMA/CA, column 4 lines 47 to 60.
8. Regarding claim 25 – Diepstraten discloses wherein occupying step includes reserving an entire container for a multiframe, refer to Figures 5 and 6A and column 5 lines 48 to 68 and column 6 and column 7 lines 1 to 58.

9. Regarding claim 26 – Diepstraten discloses wherein the radio communication system includes sectorized radio cells, refer to Figure 1, callouts 10 and 12, and column 4 lines 20 to 36.

10. Regarding claim 27 – Diepstraten does not expressly disclose wherein each of the central units only occupies one container per radio sector.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art that if only one container is required to complete the radio communication only one container per radio sector would be allocated. The suggestion/motivation for doing so would have been that Diepstraten discloses a multiframe system however the system is based on CSMA/CA and each sector only transmits when it has data, therefore, if only one container is needed then only one container per radio sector will be provided, refer to Figure 1, callouts 10 and 12, and column 4 lines 20 to 36. The benefit being that only resources are utilized when needed saving bandwidth for use by others with data to transmit.

11. Regarding claim 28 – Diepstraten discloses wherein the first central unit occupies more than one of the containers in at least one of the frequency channels, refer to Figure 1, callouts 10 and 12, and column 4 lines 20 to 36.

12. Regarding claim 29 – Diepstraten discloses occupying by the first central unit selected containers on different ones of the frequency channels using several transmission and reception



Art Unit: 2662

branches, the selected containers coinciding or lying one behind the other, refer to Figure 1, callouts 10 and 12, and column 4 lines 20 to 36.

13. Regarding claim 31 – Diepstraten discloses carrying out radio communication by using a centrally controlled protocol, the centrally controlled protocol being one of a MAC protocol, an Internet protocol, an Ethernet protocol and an UMTS protocol, refer to Figure 1 and column 4 lines 20 to 60.

14. Regarding claim 33 – Diepstraten discloses selecting a large duration for the monitoring by the first central unit to provide a high probability of an active terminal transmitting once during the large duration, refer to Figure 1 and column 1 lines 20 to 68 and column 5 lines 1 to 48.

IV. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diepstraten et al. (US 5,329,531) hereinafter Diepstraten in view of Rypinski (US 5,461,627).

1. Regarding claim 30 – Diepstraten discloses packetized digital voice services, refer to column 1 lines 35 to 60.

Diepstraten does not expressly disclose using an ATM cell as the data packet accommodating digital voice services.

Rypinski discloses using an ATM cell as the data packet accommodating digital voice services, refer to column 19 lines 24 to 40.

Art Unit: 2662

At the time of the invention, it would have been obvious to an ordinary person of skill in the art to combine the packetized digital voice services of Diepstraten with the ATM packets of Rypinski. The suggestion/motivation for doing so would have been that Diepstraten discloses the use of ISDN services which includes ATM, refer to column 1 lines 35 to 60. The benefit being that ATM is a standard protocol used in communication and providing this service will offer the customer more compatibility with other systems.

### ***Allowable Subject Matter***

Claim 32 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Chen (US 6,456,633 B1) discloses a unified distributed voice and data local area networking.
2. Pollack et al. (US 6,192,026 B1) discloses a MAC protocol for OFDM wireless networks.

Art Unit: 2662

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Pezzlo whose telephone number is (571) 272-3090. The examiner can normally be reached on Monday to Friday from 8:30 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Any response to this action should be mailed to:

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or faxed to:

(703) 872-9306

For informal or draft communications, please label ?PROPOSED≡ or ?DRAFT≡

Hand delivered responses should be brought to:


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John Pezzlo

2 June 2005

  
JOHN PEZZLO  
PRIMARY EXAMINER